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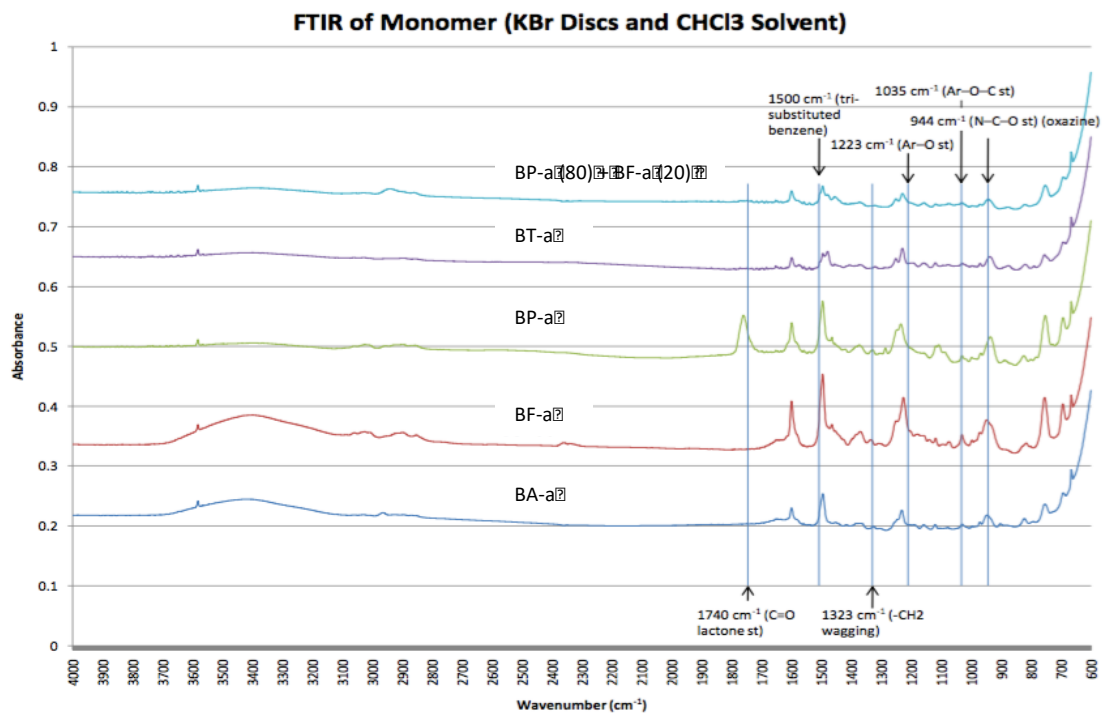
# Exploring the Thermal Degradation Mechanisms of Some Polybenzoxazines Under Ballistic Heating Conditions in Helium and Air

Scott Thompson, Brendan J. Howlin, Corinne A. Stone, Ian Hamerton\*

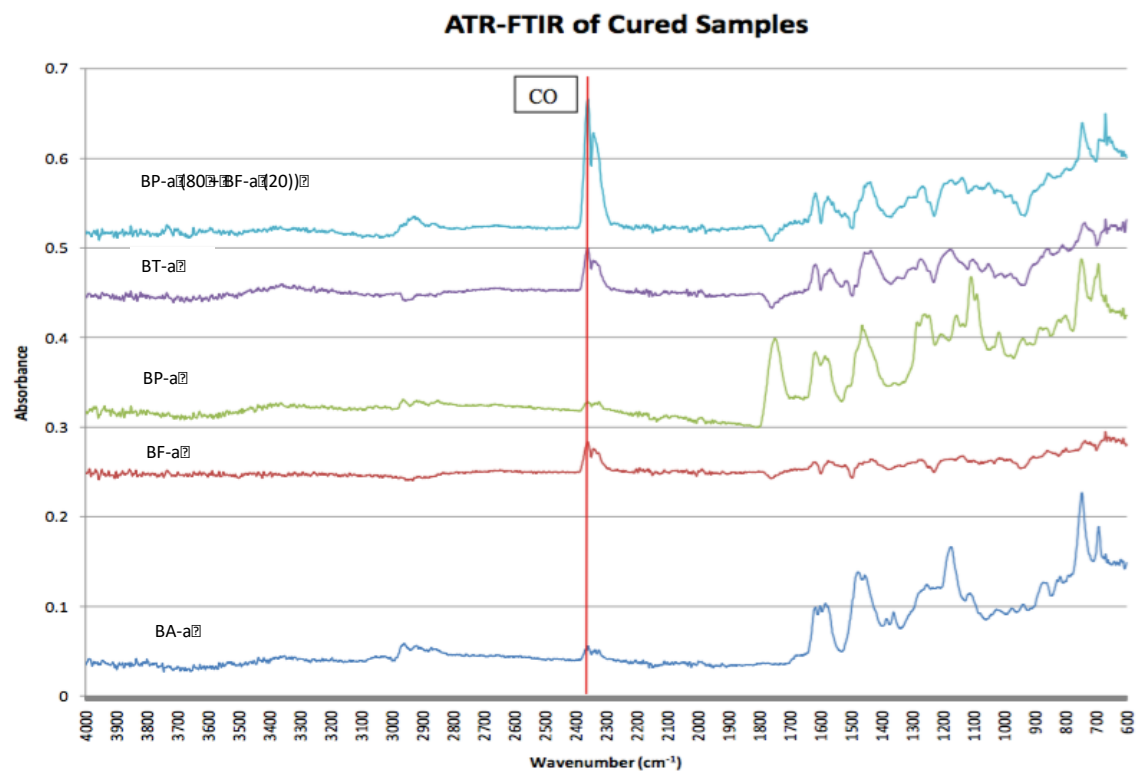
## Supplementary Material.

**Table S1.** Elemental analysis of monomers and cured PBZs

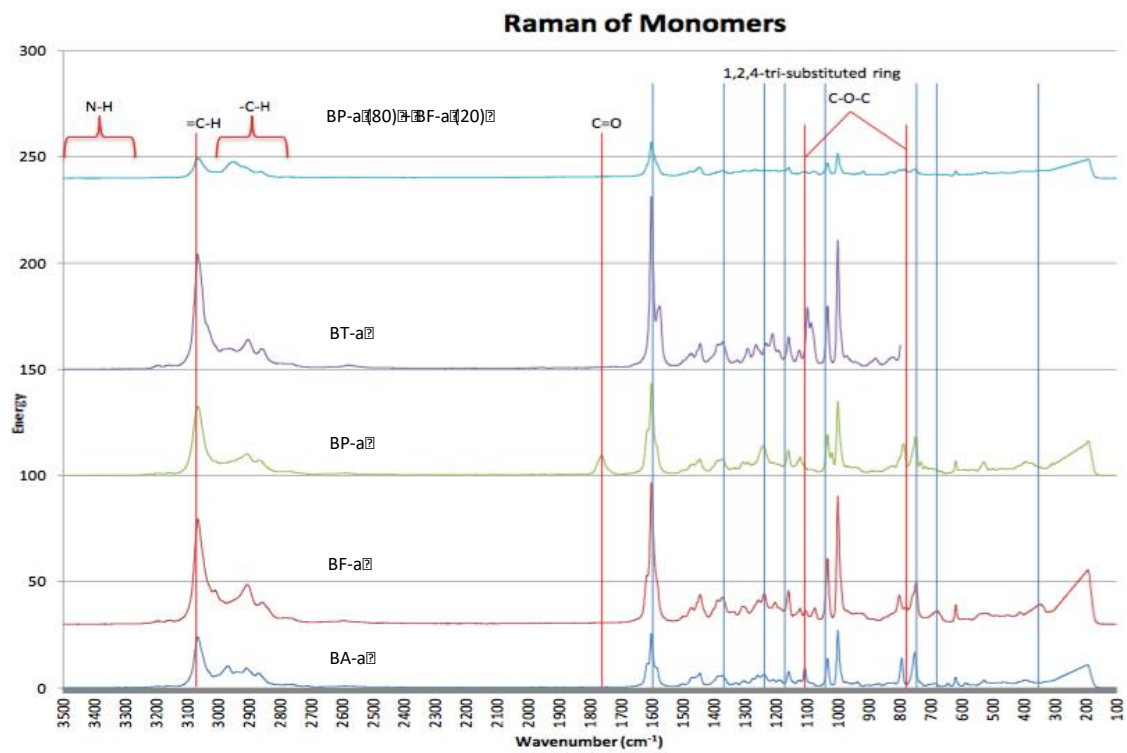
Monomers	BA-a	BF-a	BP-a	BT-a	BPa (80)/BF-a (20)
Measured					
%C	79.98	79.63	77.33	73.37	81.34
%H	6.35	5.74	5.21	5.08	6.81
%N	5.86	6.18	4.86	5.92	4.37
Calculated					
%C	80.49	80.16	78.24	74.31	82.28
%H	6.54	6.03	5.11	5.35	6.90
%N	6.06	6.45	5.07	6.19	5.05
Polymers	Poly(BA-a)	Poly(BF-a)	Poly(BP-a)	Poly(BT-a)	Poly(BPa (80)/BF-a (20))
Measured					
%C	79.98	79.63	77.33	73.37	81.34
%H	6.35	5.74	5.21	5.08	6.81
%N	5.86	6.18	4.86	5.92	4.37
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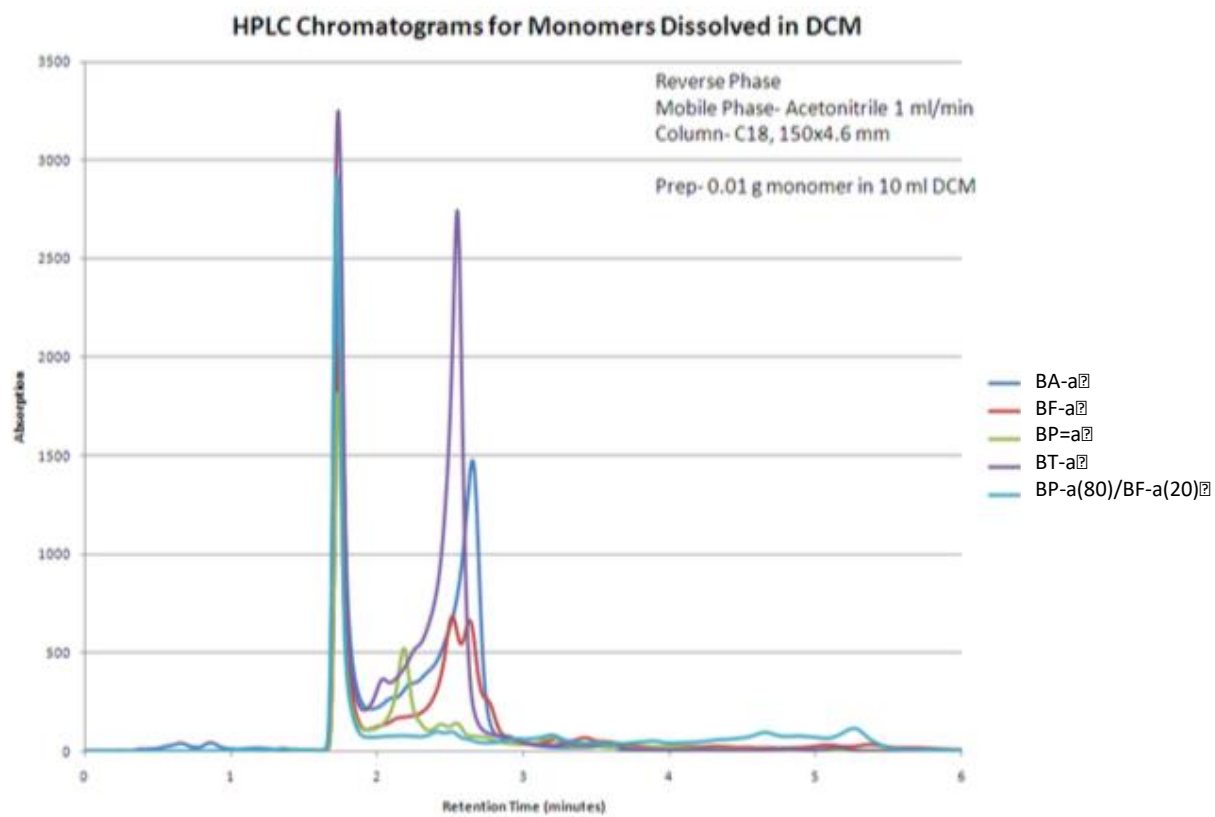
**Figure S1** – FTIR spectra of monomers.



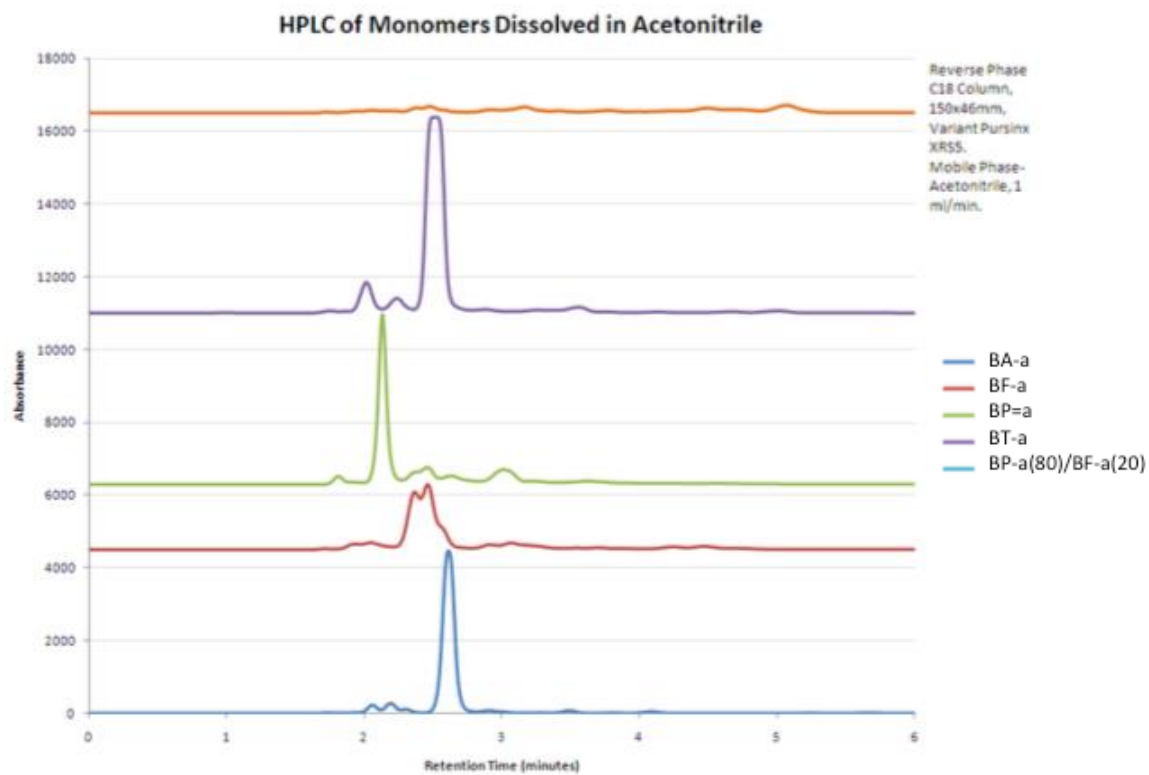
**Figure S2** – ATR-IR spectra of monomers.



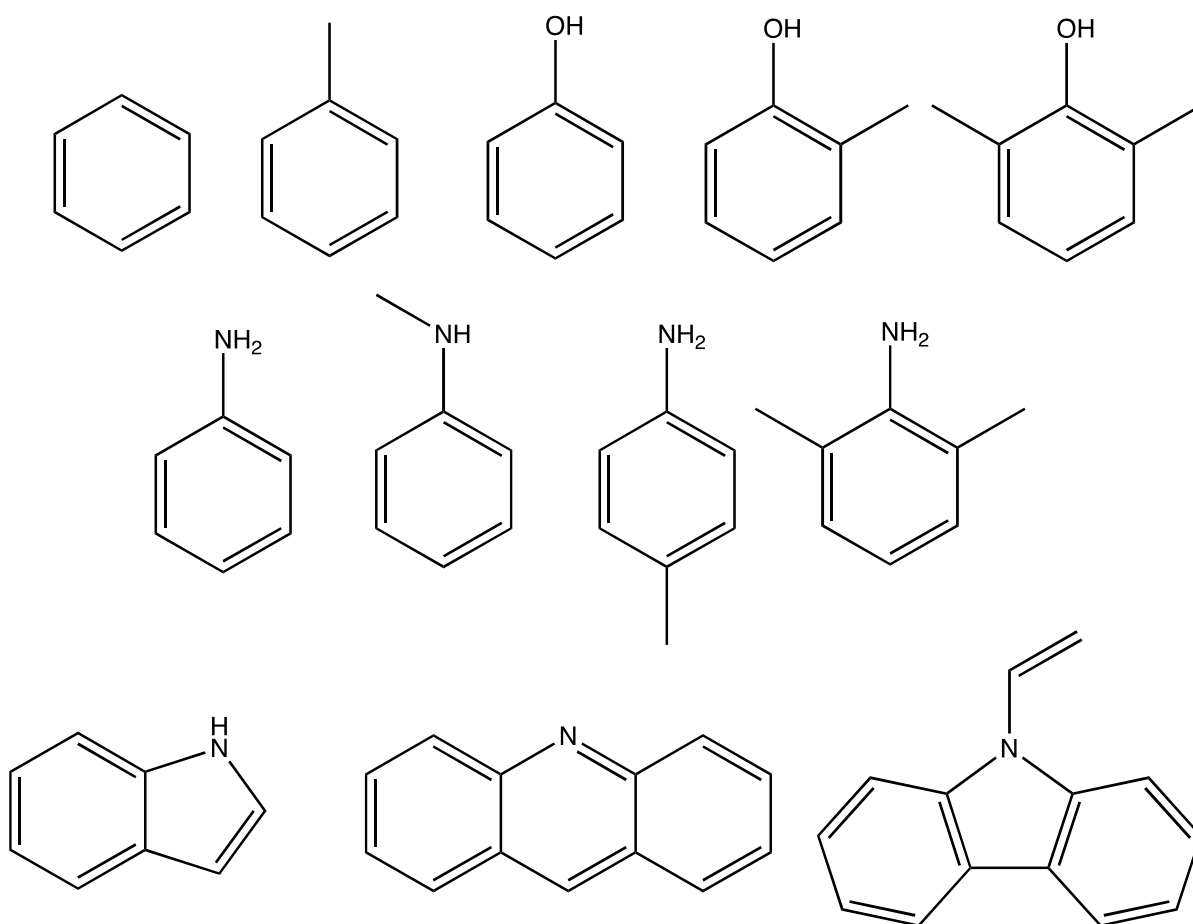
**Figure S3** – Raman spectra of monomers.



**Figure S4** – HPLC analysis of monomers (normal phase,  $\text{CH}_2\text{Cl}_2$ ).

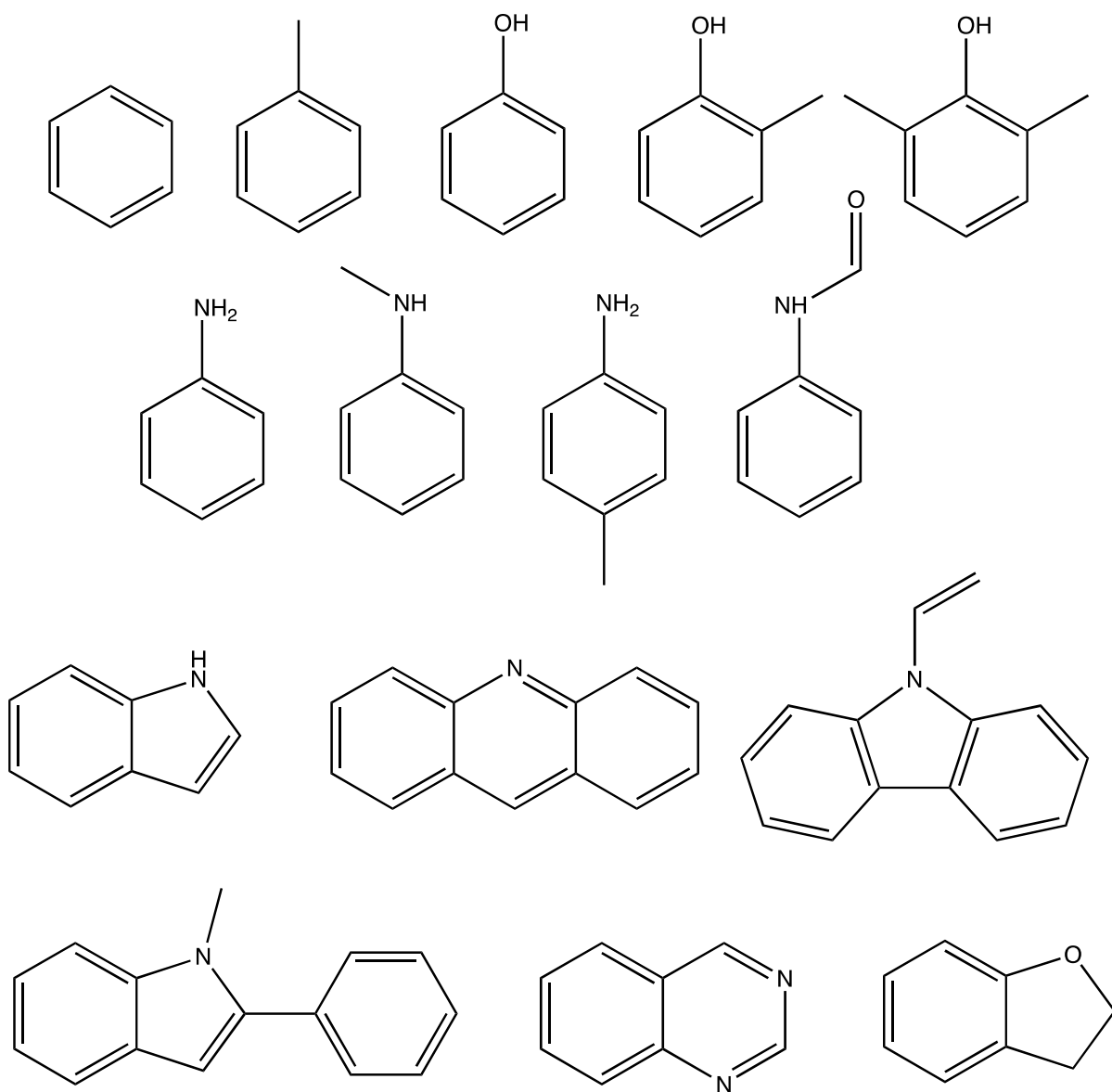


**Figure S5** – HPLC analysis of monomers (reverse phase, acetonitrile).



**Figure S6** - Shared pyrolysis products of PBZs heated to 800 °C under helium.





**Figure S7** - Shared pyrolysis products of PBZs heated to 800 °C under air.